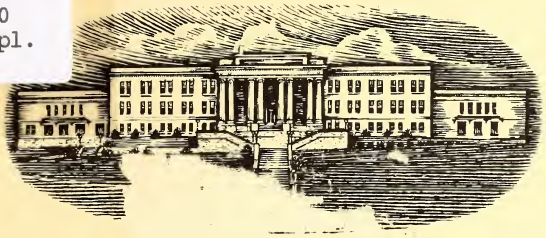
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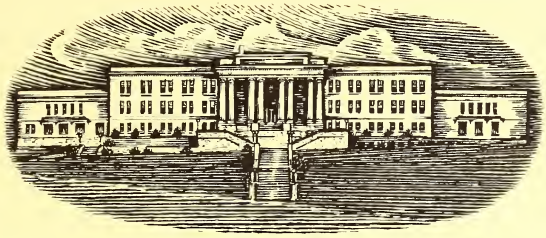


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CORRESPONDENCE DIRECTORY

Fairmont State College
Fairmont, West Virginia 26554
Phone (304) 367-4000
West Virginia Toll Free Number 1-800-641-5678

Correspondence should be addressed as indicated below:

Admissions For everything concerned with the admission of students, including requests for the College Catalog and other publications, academic credit, and information about fees	Registrar and Director of Admissions
Administrative and General College Policy	President
Curricula, Faculty, Instruction, Summer Sessions	Vice President for Academic Affairs
College Fees	Vice President for Finance and Facilities
Community College and Continuing Education	Dean of Community College
Coordinator for Handicapped	Student Affairs
Guidance and Counseling	Student Affairs
Housing	Student Affairs
Publicity, Alumni Activities	Coordinator of Public Relations
Scholarships, Loan Information and Student Employment	Student Affairs
Section 504 and Title IX Coordinator	Assistant to the President

209784

SUPPLEMENT TO THE FAIRMONT STATE COLLEGE 1988-90 CATALOG

The following revisions, additions, and deletions should be considered as an integral part of the 1988-90 Catalog.

VISITORS

Visitors are always welcome at Fairmont State College. An informal tour of the campus may be obtained for those persons, especially for classes of high school students, who notify the College in advance of their coming. Information may be obtained at the Office of Student Affairs in the Hardway Hall.

POLICY ON EQUAL OPPORTUNITY

Fairmont State College is an Equal Opportunity-Affirmative Action institution. In compliance with Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act, West Virginia Human Rights Act, Title IX (Educational Amendments of 1972), Section 504 of the Rehabilitation Act of 1973, and the other applicable laws and regulations, the College provides equal opportunity to all prospective and current members of the student body, faculty, and staff on the basis of individual qualifications and merit without regard to race, sex, religion, age, national origin, or handicap, as identified and defined by law.

The College neither affiliates knowingly with nor grants recognition to any individual, group or organization having policies that discriminate on the basis of race, color, age, religion, sex, national origin, or handicap, as defined by applicable laws and regulations.

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INTRODUCTION

The last paragraph of the introduction on page 7 of the current catalog should read as follows:

Accreditation

The College is also a member of the American Association of Colleges for Teacher Education, the American Association of State Colleges and Universities, American Council on Education, Technology Accreditation Commission of the Accreditation Board of Engineering and Technology (A.S. & B.S. in Electronics and Mining), National League for Nursing, and American Library Association, West Virginia Library Association and West Virginia Press Association.

ADMISSION

The following admission policy is to be added to the admission information on page 10 of the current catalog.

Academic Forgiveness

Academic Forgiveness is intended for those students who are returning to college with a grade point deficit. When academic forgiveness is granted, failing grades F, WF, and FIW are excluded from the computation of the grade point average. However, these failing grades will not be deleted from the permanent record. Academic forgiveness will be granted only once for any student. Consideration for forgiveness will be granted upon receipt by the Registrar of a signed, written request from the student which indicates that a five-year period has elapsed since that individual has been a full-time student at Fairmont State College or at any other institution. If the student has attended any institution of higher education on a part-time basis during the past five years, he or she must have earned at least a 2.0 average in any course work attempted.

The College is not bound by the decision of any other institution to disregard grades earned in college courses. Similarly, students should be aware that academic forgiveness extended by the College may not be recognized by other institutions to which they may transfer.

ACADEMIC INFORMATION

Study Abroad Programs

In keeping with a desire to provide more direct student enrichment programs in international education, Fairmont State College provides Study Abroad opportunities to students enrolled in a formal degree or certificate program. Students may receive collegiate academic credit for study and experience occurring outside the United States by: 1) enrollment in a resident study abroad or travel-study program sponsored by Fairmont State College; 2) enrollment in a resident study abroad or travel-study program sponsored by FACDIS (The West Virginia Consortium for Faculty and Course Development in International Studies); 3) enrollment in a program directed by faculty members from other West Virginia institutions; 4) enrollment in a program sponsored by a US College or University or Consortium with FSC's approval; 5) enrollment in a foreign university as a special student; 6) enrollment in a US College or University abroad; 7) enrollment in a program sponsored by an organization other than a college or university with FSC's approval. Students will be required to obtain prior consent from the academic division or department before registering for programs other than those sponsored by FSC or FACDIS.

Although such international experience is not required in all programs, study abroad is strongly recommended for students not only in the field of foreign languages but also in other fields as well (such as the humanities, social sciences, business, art, etc. Resident study abroad programs or travel-study programs will be integrated with traditional academic courses already offered at FSC and will become part of the regular institutional curriculum.

Study abroad is an important component of a comprehensive studies program which can contribute to the development and growth of the individual student and prepare the student to function more effectively in a global world. Participants in such programs will enhance their preparation for further graduate or professional studies and employment while deriving countless other benefits.

TUITION AND FEE CHANGES

The following listing reflects changes made in the various fees. Consult pages 20 through 23 of the College Catalog.

Enrollment Fees Per Semester

On Campus	W. Va. Resident	Non-Resident
12 hours (or more full-time students	$595.00	$1,490.00
11 hours	553.00	1,378.00
10 hours	515.00	1,265.00
9 hours	477.00	1,152.00
8 hours	439.00	1,039.00
7 hours	401.00	926.00
6 hours	252.00	702.00
5 hours	214.00	589.00
4 hours	176.00	476.00
3 hours	138.00	363.00
2 hours	100.00	250.00
1 hour	62.00	137.00

All freshmen must pay a $15.00 Freshman Orientation Fee-August term only. All new students--freshmen or transfers--must pay a $4.00 Service Charge to set up a schedule. Students are entitled to activities and athletic functions if enrolled for seven hours or more.

Fee Identification	W. Va. Resident	Non-Resident
Tuition	$125.00	$400.00
Faculty Improvement Fee	25.00	70.00
Special Registration Fee	50.00	250.00
Higher Ed. Resources Fund	260.00	635.00
Athletics Fee	48.00	48.00
Student Union Fee	26.00	26.00
Student Activity Fee*	61.00	61.00
Total	595.00	1,490.00

*Supports Student Government, Student Publications, I.D. Cards, Testing, Student Programs, Masquers and Forensics, Band, Choral, Intramurals, Debate, and Student Center Activities; this also includes health and safety fees.

Off-Campus

Total hours must be taken off-campus to qualify for off-campus fees. If a class is taken on-campus, then all hours will be charged at the on-campus rate.

	W. Va. Resident	Non-Resident
12 hours (or more full-time students	$460.00	$1,355.00
11 hours	418.00	1,243.00
10 hours	380.00	1,130.00
9 hours	342.00	1,017.00
8 hours	304.00	904.00
7 hours	266.00	791.00
6 hours	228.00	678.00
5 hours	190.00	565.00
4 hours	152.00	452.00
3 hours	114.00	339.00
2 hours	76.00	226.00
1 hour	38.00	113.00

Residence Hall Expenses Per Semester

Rent:
Morrow, Prichard, and Pence Halls $570.00 plus tax

Food Service:
All residents of Morrow, Prichard, and Pence Halls are required to purchase a meal ticket for use in the College Dining Hall $757.90

Board (20 meal plan) one-half semester--Off-Campus Residents Only $378.95

Breakage Fee $50.00

FINANCIAL ASSISTANCE

Descriptions for the following scholarships, which appear on page 25, have been changed as follows:

Scholarships and Awards

Foundation Academic Scholarship (FAS)

Recipients of this scholarship receive funding for the freshmen year only by the Fairmont State College Foundation and are selected on the basis of outstanding academic performance in high school. Full-time enrollment is required.

Foundation Scholarship for Outstanding Performance
(Formerly Foundation National Merit Scholarship)

The Fairmont State College Foundation funds this scholarship for extremely high-level academic and leadership performance. The scholarship is awarded for a total of eight semesters if the recipient maintains full-time enrollment.

DIVISION OF COMMERCE

General Studies Error (Page 55)

Economics 202 cannot be used to fulfill General Studies requirements.

MINOR REQUIREMENTS

Marketing

The minor in Retail Management (page 169) cannot be used to fulfill the minor requirement when the major is Marketing, Option H of the B.S. in Business Administration (pages 59-60).

Office Administration

The Secretarial Associate in Science Degree (page 169) and the Clerical minor (page 150) cannot be used to fulfill the minor requirements when the major is Office Administration, Option D of the B.S. in Business Administration.

Consolidation of Two Certificate Programs into One Program

Office Specialist Certificate

The Clerical Certificate in Applied Science and the Secretarial Certificate in Applied Science have been deleted from program offerings. Existing courses in these programs have been regrouped into a single program, which permits students to choose either a clerical or a secretarial emphasis.

Certificate Requirements **34 sem. hrs.**

Required Courses **23 sem. hrs.**

OADM	102	Inter. Typewriting/Keyboarding . . .	3
	211	Adv. Typewriting/Keyboarding	3
	230	Intro. to Word Processing	3
	251	Business Communications	3
	342	Electronic Records Management	3
	360	General Office Procedures	3
	362	Directed Office Experience	2
Eng.	104	Written English	3

Select one of the two following alternatives:

CLERICAL 11 sem. hrs.

Bus.	102	Intro. to Business	3
	141	Business Mathematics	3
OADM	204	Secretarial Accounting	3
H. Ec	103	Clothing Selection	2

SECRETARIAL 11 sem. hrs.

*OADM	201	Beginning Shorthand	4
	202	Intermediate Shorthand	4
	361	Spec. Office Procedures	3

*If a student has had previous shorthand training, office administration electives should be taken in lieu of beginning shorthand.

COURSE NUMBER CHANGE

Business

Change Bus. 433 to Bus. 230 Microcomputer Applications in Business.

CREDIT HOUR CHANGE

Office Administration

Change the credit hours of Office Administration 104, Introduction to Microcomputers, from one to two credit hours. (See revised course description.)

NEW COURSE

Office Administration

100. Microcomputer Keyboarding **two hours**

A course designed to teach alpha/numeric keyboarding skills for the typewriter and microcomputer. Attainment of 25 wpm is required. Graded Credit/No Credit.

REVISED COURSE DESCRIPTIONS

Business

230. Microcomputer Applications in Bus. **three hours**

This course will afford students the opportunity to improve their skills in the area of business applications software. No programming will be involved. Software programs to be addressed will reflect those most commonly used in the business community. PR: CS 100.

Office Administration

104. Introduction to Microcomputers **two hours**

This course provides an introduction to microcomputers by using the PC and is open to all students. The course involves two lecture hours per week. Students will learn the basic skills necessary to input data by using various software programs. Instruction also includes the basic operation of a PC as well as the significance of control keys and key combinations.
PR: OADM 100 or 101 or consent of instructor.

230. Introduction to Word Processing **three hours**

Three hours lecture and discussion per week. This course will provide an introduction for the non-major in Office Administration as well as a familiarization course for those individuals who have little or no experience with computers. The course will present opportunities to explore microcomputer operations, computer software, and word processing applications and will provide an overview of the concepts and terminology of computer operations, including some of the basic principles of word processing. This course is an elective and cannot be used as a substitute for OADM 340, nor can it be taken by any student whose program requires OADM 340. PR: OADM 101 or consent of instructor or high school typing courses.

DIVISION OF FINE ARTS

Catalog Error - Page 68
The band requirement should read as follows:

All music majors with an instrumental emphasis must take Band their freshman and sophomore years and at least one semester of chorus is recommended.

COURSE NAME AND NUMBER CHANGE

Change 169 Band I-IV and 369 Band I-IV to 168-368 Marching Band.

NEW COURSES

Music

168-368. Marching Band **two hours**

Open to students who play a band instrument or have the necessary skills to participate in one of the auxiliary units such as flags, rifles, or twirlers. The Marching Band performs at all home football games during the fall semester and at various marching band activities such as parades and festivals.

171. Laboratory, Band and Orchestra **one hour**

This course provides review experiences in conducting and playing instruments at the beginning and intermediate levels. Beginning and intermediate instrumental methods books will be reviewed. PR: Music 170.

PROGRAM CREDIT HOUR CHANGE

Music

The credit hour requirement for music majors is changed from 59 to 62.

DIVISION OF HEALTH CAREERS

Medical Laboratory Technology

The following name is to be added to the affiliates listed on page 163 of the catalog:

Louis A. Johnson, V.A. Medical Center, Clarksburg and Preston Memorial Hospital, Kingwood, West Virginia.

Program Requirements - The third paragraph on page 163 has been changed to read:

In order to continue in the Medical Laboratory Technology Program, a student must have an overall 2.0 average plus an overall 2.0 average in the following subjects: Chemistry 105 and 106, Biology 170 and 205, MLT 101, 102, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, and 216. Failure to maintain this average will result in dismissal from the program. Readmission is on the basis of reapplication and reacceptance.

NEW PROGRAM

Nursing
(Bachelor of Science)

The Bachelor of Science in Nursing Program is designed for registered nurses who desire a baccalaureate degree in nursing. It provides career mobility for the associate degree and diploma graduate nurse. The program is designed to prepare nurse generalists who possess the professional competence to provide and coordinate care in situations of health promotion, maintenance, and restoration. The program aims to provide a base for graduate study and to prepare graduates to assume accountability for nursing practice in the roles of clinical generalist, client advocate, leader, collaborator, research participant and lifelong learner.

The curriculum is individually designed on the basis of the student's academic background. A minimum of 132 approved credit hours is required. The program can be completed in two full-time academic years if the lower division requirements have been completed in advance. Students may enroll on a part-time basis. Nursing courses will be offered in the evening when possible.

Graduates of a diploma nursing program will receive credit for lower division nursing courses by successfully completing selected NLN mobility examinations.

All applicants seeking admission to the Bachelor of Science in Nursing Program are required to:

1. Meet the general admission requirements of Fairmont State College.

2. Hold a license to practice as a registered nurse.

3. Submit an application for admission, designating the major as Baccalaureate in Nursing, to the Director of Admissions by March 1 in order to be considered for admission for the following academic year. The following information must also be submitted by the same date:

 a. Official high school transcript or GED scores.

 b. Official college or diploma program transcripts.

 c. Short resume including education and work experience since graduation.

 d. Evidence of current CPR certification (must be provided prior to beginning clinical courses).

 e. Completed health form (required for final approval).

4. Complete successfully lower division requirements as indicated prior to admission to clinical nursing courses.

5. Have transfer courses evaluated by the Director of Admissions.

Registered nurses who have not completed the required lower division courses are encouraged to contact the Department of Nursing for advisement purposes.

RN COMPLETION COMPONENT

The following courses are required for completion of this program. Most of the courses must be completed prior to admission; exceptions to this rule are footnoted following the list of courses:

Al. Hlth.	106	Intro to Pharmacology.	2
	372	Legal & Medical Ethics (Nursing 204, Trends in Nursing)	3
Bio.	170	Anatomy & Physiology	4
	205	Technical Microbiology	4
Chem.	101	General Chemistry.	4
	102	General Chemistry.	4
Eng.	104	Written English.	3
	108	Advanced Written English	3
*Fine Arts		General Studies Requirement . . .	2
Home Ec.	303	Nutrition (Home Economics. 110, Elementary Nutrition)	2-3
*Phy. Edu.		General Studies Requirement . . .	1
Pol. Sci.	103	American Government	3
Psy.	101	Intro to Psychology I.	3
	330	Developmental.	3
Soc.	110	Introductory Sociology	3
*Speech	100	Intro to Speech Communication . .	3

*These courses are not pre-requisite to admission. They may be integrated into the student's schedule while enrolled in the program; however, this may extend the length of the program.

Fairmont State College graduates of the associate degree nursing program will receive equivalent credit for courses listed in parentheses if they have been successfully completed.

MODEL SCHEDULE RN COMPLETION TRACK

Registered nurses seeking admission to this program must meet the requirements specified above in order to articulate to the junior level nursing courses.

JUNIOR YEAR

Fall Semester

Allied Health	102	Pathophysiology of Disease . .	3
English	250	Survey of English Literature .	3
Nursing	220	Health Assessment	4
	250	Professional Nursing Concepts	3
Soc. Science		Elective	3

Select one of the following:

Soc. Science	150	Intro. to Appalachian Studies
Sociology	200	Social Problems
	230	Social Psychology
	301	Anthropology
	310	Sociology of the Family
Philosophy	200	Introduction to Philosophy
	325	Thinking About Values

Spring Semester

Allied Health	301	Health Care Organizations. . .	3
Economics	200	Economics	3
		or	
	201	Economic Principles & Problems	
Nursing	300	Complex Nursing Situations . .	4
Psychology	240	Statistics	4

SENIOR YEAR

Fall Semester

English	260	Survey of American Literature	3
Management	308	Personnel Management	3
Nursing	400	Research in Nursing Practice .	2
	410	Community Health Nursing . .	6

Spring Semester

Nursing	430	Leadership & Management in Nursing Practice	3
	440	Nursing Practicum	7
		Elective	3

REVISED PROGRAM

Emergency Medical Services (Certificate in Applied Science)

The following Emergency Medical Services One-Year Certificate Program is designed to train paraprofessionals to provide Emergency Medical Services commensurate with the needs of the geographic region. Current West Virginia EMT-A certification is a prerequisite to admission into the program. Upon successful completion of the program, participants are eligible for examination by the West Virginia Department of Health, Office of Emergency Medical Services, at the EMT-Paramedic level.

Emergency Medical Services Program* 36 sem. hrs.

Eng.	104	Written English	3
	109	Technical Report Writing.	3
EMS	202	EMT-Paramedic I	8
	203	EMS Practicum I	2
	204	EMT-Paramedic II	8

	205	EMS Practicum II	2
Bio.	170	Anatomy & Physiology	4
Psy.	101	Introduction to Psychology.	3
Al. Hlth.	100	Medical Terminology	3

*Admission to this certificate program is limited to emergency service personnel in the North Central West Virginia EMS System and requires the approval of the EMS Program Coordinator.

DELETED COURSES

EMS 198 Advanced Emergency Care
EMS 201 EMS Practicum

NEW COURSES

Emergency Medical Services

202. EMT-Paramedic I **eight hours**

This course provides didactic training in advanced life support aspects of emergency prehospital care and includes Division I: Prehospital Environment; Division II: Preparatory; Division III: Trauma; Division IV: Medical I (Toxicology, Alcoholism, Drug Abuse, Infectious Diseases, and Pediatrics); Division V: Obstetrics, Gynecology, and Neonatal; and Division VI: Behavioral Emergencies of the **National Standard Curriculum for EMT-Paramedics** by the Department of Transportation. Must be taken concurrently with EMS 203. PR: Certification as an EMT-A (requires completion of 110 contact hours as outlined by the Department of Transportation) and consent of the instructor.

203. EMS Practicum I **two hours**

This course is devoted to the practical application of advanced life support aspects of emergency prehospital care in management of illness/injuries covered in EMT-Paramedic I. Must be taken concurrently with EMS 202.

204. EMT-Paramedic II **eight hours**

This course provides didactic training in advance life support aspects of emergency prehospital care and includes Division IV: Medical II (Respiratory, Cardiovascular, Endocrine, Nervous System, Acute Abdomen, Genitourinary System, Reproductive System, Anaphylaxis, Environmental Injuries, Geriatrics, and Gerontology) of the National Standard Curriculum for EMT-Paramedics by the Department of Transportation. Must be taken concurrently with EMS 205. PR: EMS 202, 203.

205. EMS Practicum II **two hours**

This course is devoted to the practical application of advanced life support aspects of emergency prehospital care in management of illness/ injuries covered in EMT-Paramedic II. Must be taken concurrently with EMS 204. PR: EMS 202, 203.

Nursing

199. Special Topics in Nursing **one-twelve hours**

This course is concerned with special studies in selected topics. The topic to be studied will be determined by the instructor and approved by the division head. Credits earned will be applicable as free electives in degree and certificate programs.

220. Health Assessment **four hours**

This course is designed to develop skill in assessment of the child and adult client's health status with application to the nursing process. Principles from the physical, biological, and social sciences are incorporated throughout the course. Faculty supervised campus laboratory and clinical experiences in selected health care settings are employed to validate skill. (2 hours lecture, 4 hours lab) PR: Admission to the BSN Nursing major, Psychology 330

250. Professional Nursing Concepts **three hours**

This course is designed to assist the registered nurse in exploring concepts, theories, and issues relevant to professional nursing. Areas explored include theories of nursing, beliefs, assumptions and values of the nurse client relationship, socialization to the professional nursing role, health and health care delivery systems, and the process of nursing. PR: Registered nurse status and admission to the BSN Program.

299. Special Topics in Nursing **one–twelve hours**

This course is concerned with special studies in selected topics. The topic to be studied will be determined by the instructor and approved by the division head. Credits earned will be applicable as free electives in degree and certificate programs.

300. Complex Nursing Situations **four hours**

This course addresses the nursing role as related to clients of all age groups with life–threatening illness. Emphasis is placed on specialized and critical care nursing practice. (8 weeks course, 4 hours lecture, 8 hours lab) PR: Nursing 240 or permission of nursing coordinator.

399. Special Topics in Nursing **one–twelve hours**

This course is concerned with special studies in selected topics. The topic to be studied will be determined by the instructor and approved by the division head. Credits earned will be applicable as free electives.

400. Research in Nursing Practice **two hours**

This course analyzes the scientific process with emphasis on its application to nursing. Emphasis is placed on developing an understanding of the logical process of research, reasoning, and the scientific inquiry necessary to carry out studies of nursing interest. PR: Psychology 240, Nursing 320, 330.

410. Community Health Nursing **six hours**

This course focuses on the theories and principles underlying current community health nursing practice. Emphasis is placed on the client and family including appropriate nursing intervention for individuals, families, and groups in outpatient settings and in the home. Content includes application of the nursing process to community based intervention in health teaching, health maintenance and promotion, and utilization of community resources. (4 hours lecture, 4 hours lab) PR: Nursing 320, Allied Health 301.

430. Leadership and Management in Nursing Practice **three hours**

This course explores theories of leadership and management as they relate to nursing and health care. Consideration is given to strategies appropriate for the individual and group in the practice setting. Influences and dynamics of change as they affect the quality of health care are explored. PR: Management 308, Allied Health 301, Nursing 410.

440. Nursing Practicum **seven hours**

This course assists students in the integration of theory and practice as they approach completion of the nursing major. Students may choose a clinical area for advanced clinical practice under faculty guidance. Emphasis is placed on synthesis of previously learned concepts and skills as students carry out nursing activities. Goals include development of autonomy in nursing practice, skill in clinical decision-making and judgment, and development of beginning leadership skills in nursing practice. PR: Management 308, Allied Health 301, Nursing 410.

499. Special Topics in Nursing **one-twelve hours**

This course is concerned with special studies in selected topics. The topic to be studied will be determined by the instructor and approved by the division head. Credits earned will be applicable as free electives.

REVISED COURSES

Emergency Medical Services

101. Techniques of Emergency Medical Services **four hours**

This course involves the study of techniques of emergency medical services including medical aid for victims of trauma or illness, principles of auto extrication, rope work, and radio communications. Training includes both classroom and field experience. In addition to regular course hours, four lab hours are required each week.

102. Clinical Practicum **three hours**

This practicum is designed to increase the field knowledge of the EMS student prior to entry into the Paramedic Training Program. This course is recommended by the State Office of Emergency Medical Services. PR: EMS 101, EMT Certification, and approval of the EMS Program Coordinator.

HEALTH, PHYSICAL EDUCATION, RECREATION AND SAFETY

Physical Education

Change Physical Education 313, Mechanical Analysis of Sport Activities to Biomechanics.

REVISED COURSE DESCRIPTION

313. Biomechanics **three hours**

Biomechanics is the study and analysis of humans in motion, including the structures that are responsible for motion and the forces that influence human motion. PR: PE 211

DIVISION OF SCIENCE AND MATHEMATICS

Error in Mathematics Subject Specialization 5-8, page 100.
Computer Science 101, Applied Technical Programming, should be deleted from the program.

REVISED PROGRAMS

Changes in Biology and Mathematics which affect teacher education programs are tentatively approved pending EPPAC and State Education Department approval.

Biology

The requirements for the Bachelor of Science, major and minor, and the Bachelor of Arts in Education on pages 96 and 97 have been changed to read:

Biology 370	Plant Physiology	4 sem. hrs.
or		
Biology 368	Animal Physiology	4 sem. hrs.

Mathematics

Mathematics 216, Introduction to Discrete Mathematics, 3 semester hours may be used by students as an elective for the Bachelor of Arts or the Bachelor of Science in Mathematics degree. It may also be used to satisfy the Group I option, page 100, by students obtaining a minor in mathematics.

Mathematics Major, B.S. Degree, page 99. Replace EDP 103, Fortran Programming I with CS 102, Principles of Programming I.

209784

Mathematics Subject Specialization 5-8

The Mathematics Subject Specialization 5-8 on page 100 has been revised to include Math 110 and to permit a choice of Computer Science 100 or Computer Science 102. The revised program is as follows:

Mathematics Subject Specialization 5-8 21 sem. hrs.
(General mathematics through Algebra I)

Math	110	Mathematics for Elem. Teachers I . . .	3
	210	Mathematics for Elem. Teachers II. . .	3
	115	Intermediate Mathematics II.	4
	372	Modern Geometry	
		or	
	323	Mathematics for Elem. Teachers III . .	3
	212	Sets, Relations and Functions	
		or	
	361	Abstract Algebra	3
	431	Methods and Materials in Teaching Mathematics.	2
CS	100	Intro. to Electronic Data Processing	
		or	
CS	102	Principles of Programming I.	3

Single Teaching Field 5-12 39 sem.hrs.
(page 100)

The title of this field has been changed to Comprehensive Mathematics Teaching Field 5-12.

Electives added to the list for this program are:

Math 216, Introduction to Discrete Mathematics, and Math 401, Differential Equations.

NEW COURSES

Biology

300. Environmental Microbiology **four hours**

This course is designed to acquaint the student with the importance of microorganisms to humans and the environment. Included are the relationships of microorganisms and their interactions with both plant and animal communities including humans, the ecological parameters of microorganisms, the biogeochemical cycles and the applied aspects of the field of microbial ecology.

Laboratory emphases will be or the isolation of bacteria, on the interactions of different microbial populations and studies of both qualitative and quantitative chemical changes in the natural ecosystem. Two lectures and two, 2-hour labs each week. PR: Biology 224

368. Animal Physiology **four hours**

This course is designed to give consideration to the physiological process of animals, including integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Laboratory exercises will place emphases on the same physiological processes. Three lectures and one 2-hour lab per week. PR: Biology 219 and Biology 310.

475. Research Methods in Biology **three hours**

This course is an introduction to the methods used in collecting, analyzing, and reporting biological data. Two lectures and one, two-hour laboratory each week. PR: 20 hours of biological courses and consent.

Mathematics

216. Introduction to Discrete Mathematics **three hours**

This course is designed to provide a survey of the mathematical reasoning and the objects of study found in discrete mathematics. Topics considered include sets, relations, functions, combinatorics, graphs, trees, discrete probability, and recurrence relations. Interspersed throughout the course will be material on the nature of proof and analysis of algorithms. PR: Math 115

PRE-REQUISITE CHANGE

Biology

The pre-requisites for Biology 450, Comparative Physiology, have been changed to Biology 310, 350, and 368.

Mathematics

The pre-requisites for Math 342, Numerical Analysis, have been changed to Math 315 and Computer Science 102 or consent.

REVISED COURSE DESCRIPTION

Mathematics

372. Modern Geometry **three hours**

A brief review of informal Euclidian Geometry, including areas and volumes. A formal development of Euclidean geometry utilizing concepts such as incidence, convexity separation, distance functions, angular measurement functions. Other geometric topics such as topology, non-Euclidian geometry, finite geometries, projective geometry and transformational geometry are briefly introduced. PR: Math 116 or consent.

DIVISION OF SOCIAL SCIENCE

COURSE TITLE CHANGES

History

Change History 381, The Black Man in America: 1865 to the Present, to Blacks in America: 1865 to the Present.

Political Science

Change Political Science 393, The Future of Man, to Future Global Crises.

Psychology

Change Psychology 393, The Future of Man, to Future Global Crises.

Sociology

Change Sociology 381, The Black Man in America: 1865 to the Present, to Blacks in America: 1865 to the Present.

PROGRAM REQUIREMENT CORRECTION

Psychological Service Technician

Program requirement error on page 168 - Speech 233, Interpersonal and Small Group Communication, is required rather than Speech 240, which has been deleted from the courses offered by the Speech Department.

PROGRAM REVISION

Political Science

Major — **30 sem. hrs.**

Required Courses — **15 sem. hrs.**

103	American Government	3
200	Introduction to Political Science	3
201	Principles of International Relation	3
203	Comparative Government	3
470	Seminar in Political Science	3

Required Electives — **15 sem. hrs.**

Advanced Political Science courses are to be chosen with adviser's approval.

DIVISION OF TECHNOLOGY/HOME ECONOMICS

Accreditation of Programs

The Technology Accreditation Commission of the Accreditation Board of Engineering Technology has accredited the Associate and Bachelor of Science programs in Electronics and in Mining.

Accreditation notations (TAC/ABET) Accredited) should be added to the program information on the following pages:

Page 115 and 155 - Electronics Engineering Technology
Page 117 and 155 - Mining Engineering Technology

ABET PROGRAMS Requirement Correction

English 109 was omitted from the requirements for the following ABET programs; however, the total hours required for the programs remain the same.

Architecture
Civil
Electronics
Graphic Communications
Manufacturing
Mechanical
Mining
Safety

Course Number Changes

Manufacturing

MFG	200	to	MFG 315
	215	to	325
	220	to	410
	230	to	415
	300	to	205

Course Title Change

Change Technology 393, The Future of Man, to Future Global Crises.

REVISED PROGRAMS

Manufacturing Engineering Technology (Associate in Science)

Requirements–Manufacturing **67 sem.hrs.**

ACCT	201	Principles of Accounting I	3
CS	101	Applied Tech. Programming	3
DRF	100	Engineering Graphics	3
ENGL	104	Written English	3
	109	Tech. Report Writing.	3
MAT	100	Materials & Processes	3
MATH	101	Applied Tech. Math I.	3
	102	Applied Tech. Math II	3
MFG	205	Engineering Economy	3
	210	Machine Shop	3
	250	Personnel Prob & Labor Relations	3
	260	Master Planning	3
	265	Mat Requirement Planning	3
	270	Inventory Control	3
	275	Capacity Management	3
	280	Production Activity Cont.	3
	285	JIT Manufacturing	3
	290	Statistical Process Cont	3
	299	Practicum	4
SAF	201	Occupational Safety	3
SPCH	100	Intro to Speech Commun.	3
TEC	302	Manufacturing IL	3

Manufacturing Engineering Technology
(Bachelor of Science)
134 Semester Hours

Requirements – Manufacturing			98 sem. hrs.
ACCT	201	Principles of Accounting I	3
CS	101	Applied Tech. Programming	3
DRF	100	Engineering Graphics	3
	255	Tool Design	4
	270	Computer Graphics	3
ELE	100	Circuit Analysis I	3
	250	AC-DC Mach & Controls	3
ENGL	109	Tech. Report Writing.	3
MFG	205	Engineering Economy	3
	210	Machine Shop	3
	250	Personnel Prob & Labor Rel	3
	260	Master Planning	3
	265	Mat. Requirement Planning	3
	270	Inventory Control	3
	275	Capacity Management	3
	280	Production Activity Cont.	3
MFG	285	JIT Manufacturing	3
	290	Statistical Process Cont	3
	299	Practicum	4
	315	Welding	4
	325	CNMC/Robotics	3
	410	Metallurgy.	2
	415	Advanced Welding	3
MATH	101	Applied Tech. Math I.	3
	102	Applied Tech. Math II	3
MEC	100	100 Statics	3
	220	Fluid Mechanics	3
PHY	101	Intro to Physics.	4
	102	Intro to Physics.	4
TEC	290	Engineering Analysis I.	4
	302	Manufacturing II.	3

NEW COURSES

Manufacturing

260. Master Planning **three hours**

This course stresses the importance of planning to achieve maximum manufacturing efficiency. It covers development of a production plan, establishment of a master production schedule, translating forecasted and actual demands into factory requirements and evaluation of a master production schedule.

265. Materials Requirement Planning **three hours**

This course covers the development and execution of a materials requirements plan. This includes the development and utilization of a bill of materials, obtaining and interpreting scheduling data and the selection and implementation of a materials requirements planning system.

270. Inventory Control **three hours**

This course focuses on the principles, concepts, and techniques for planning and controlling inventory at all stages of the manufacturing and distribution cycle.

275. Capacity Management **three hours**

This course covers the calculation of the labor, equipment, and capital requirements for production. It includes the calculation of capacity, gathering and interpreting data, analyzing results, and monitoring the enterprises output as a function of current resources.

280. Production Activity Control **three hours**

This course covers production activity in job shop, repetitive, batch, and continuous manufacturing companies. The course is divided into two parts, "push environments" and "pull environments."

285. JIT Manufacturing **three hours**

This course considers all activities necessary to make product or services available on time. This includes production control, manufacturing engineering, sales and marketing, purchasing, design engineering, maintenance, and quality control.

290. Statistical Process Control **three hours**

This course covers the statistical methods used to differentiate between special and common causes of process variation. Process control, capability and charting are also studied. The course concludes with an examination of project evaluation and improvement strategies.

299. Manufacturing Practicum **four hours**

This course consists of a supervised on-the-job learning/work experience with a cooperating manufacturing company. Students will gain "real world experience" and have an opportunity to apply the competencies they have gained to an actual project.
PR: MFG 260, 265, 270, 275, 280, 285 or consent.

PRE-REQUISITE CHANGES

Manufacturing

MFG 205, Engineering Economy - Drop TEC. 300, add MATH 102

MEC 220, Fluid Mechanics - Add or consent

HOME ECONOMICS

REVISED PROGRAM

Child Care

Minor B.A. and B.S. Degrees page 149

The credit hour requirements for the minor in Child Care have been increased by one credit hour, from 25 to 26 semester hours, and the program has been revised as follows:

HOME EC.	130	The Child and Community	3
	131	Programs for Early Childhood	3
	132	The Child and Community Practicum	1
	230	Theory and Practice in Work with Young Children	3
	232	Practicum with Young Children	3
	328	Cognitive, Affective Development of Children.	3
	330	Child Care and Development	3
	332	Child Development Problems	3

Elective hours to be selected from the following . 4

ED.	200	Introduction to Education	3
	220	Areas of Exceptionality in Special Education	3
	250	Social Foundations of Education	3
ENGL.	207	Children's Literature	3
PSY.	330	Developmental	3
HOME EC.	110	Elementary Nutrition.	2
	310	Family Life Education	3
	331	Adolescent Development	2

Fashion Merchandising

(Associate in Science)

Degree requirements have decreased from 68 to 66 credit hours. Program requirements have been revised as follows:

Delete:	Accounting	201	Principles of Accounting I
	Journalism	270	Communications in Society
Add:	Business	102	Introduction to Business
	or		
	Business	141	Business Mathematics

Suggested Electives

Add:	Accounting	201	Principles of Accounting I
	Economics	200	Economics
	or		
	Economics	201	Economic Principles and Problems
	Journalism	270	Communications in Society

Recommended Pre-requisite: Art 142 Drawing is recommended as a pre-requisite for students with no previous art experience.

PRE-REQUISITE CHANGES

Home Economics

Home Economics 275 - Home Economics 371 is a pre-requisite for this course.

Home Economics 371 - Home Economics 140 is a pre-requisite for this course.

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